

current to the load, diverter valves 146, 148 (also shown in phantom) at each end of the bypass conduit 144 would be set to direct the reformer output through the shift converter and, from there, into the selective oxidizer. During the air purge, the valves 146, 148 are set to prevent flow into the shift converter and to direct the reformer output through the bypass conduit 144 and into the selective oxidizer. Inert gas (such as nitrogen) from a source 150 (shown in phantom) could be used to separately purge the shift converter while air is being used to purge the other components. In that case, the shut-off valve 152 and vent valve 154 (both shown in phantom) would be closed during normal fuel cell operation and open during purging. After an inert gas volume of at least about 3 times the volume of the shift converter has passed through the shift converter, the valve [[142]] 152 would be closed. The vent valve 154 would remain open until the shift converter has cooled to approximately ambient temperature. Although the preferred shut-down procedure is to avoid the need for a supply of inert gas, the foregoing embodiment shows one method for handling components within the fuel processing system that use catalysts that are damaged by exposure to oxygen.

The full text of the foregoing replacement paragraph, without markings, is as follows:

If the shift converter happens to use a catalyst that cannot tolerate exposure to oxygen (i.e., air), such as a copper/zinc catalyst, air should not be used to purge that component. This may be accommodated by directing the air purge output from the reformer around the shift converter using a bypass conduit 144 (shown in phantom in Fig. 1). During the production of hydrogen while the fuel cell is providing current to the load, diverter valves 146, 148 (also shown in phantom) at each end of the bypass conduit 144 would be set to direct the reformer output through the shift converter and, from there, into the selective oxidizer. During the air purge, the valves 146, 148 are set to prevent